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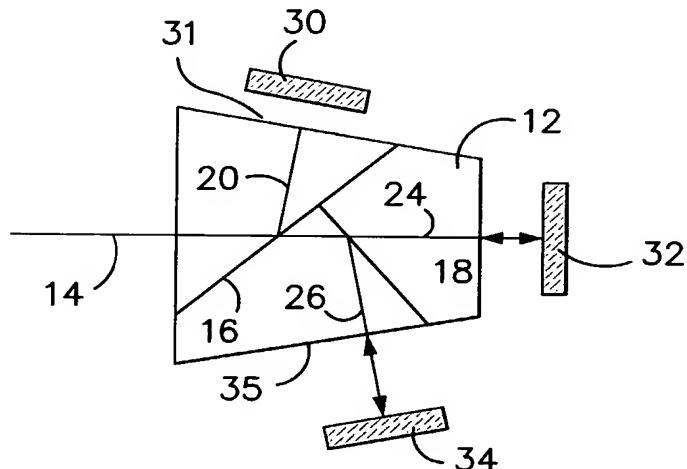
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(54) Title: AN OPTICAL SYSTEM FOR PRODUCING DIFFERENTLY FOCUSED IMAGES



(57) **Abstract:** A method and system for producing two differently focused /defocused images is disclosed in which one or more beam splitting means (16, 18) are used to split a beam (14) into a plurality of resultant beams (20, 26, 24) and a plurality of separate sensors (30, 34, 32) are used to detect the beams (20, 26, 24). The path length of the resultant beams (20, 26, 24) to the respective sensors (30, 34, 32) are different for each resultant beam, which can be achieved by placing the sensors (30, 34, 32) at different distances from the respective exit points of the resultant beams (20, 26, 24) from the beam splitting means (16, 18) or by providing optical elements (such as, for instance, movable transparent wedge-shaped members) between the beam splitting means (16, 18) and the sensors 30, 34, 32. A method and system for determining movement of an object by capturing sequential images of the object are also disclosed.

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